			45	UTAH	OIL	AND GAS CONS	SERVATION CO	OIRSIMM	V	
REMARKS:		ELE	CTRIC LOGS	FILE	X	WATER SANDS	LOCATIO	ON INSPECTE	D	SUB. REPORT/abd.
										
891113	3 Con	4 Sta	tus une	ried	<u> </u>	u OfA				
DATE FILED	4	28-88			-					
LAND: FEE & PA	ATENTED	STATE L	EASE NO.			PU	IBLIC LEASE NO.	U-23	520	INDIAN
DRILLING APPRO	OVED: 5-	05-88								
SPUDDED IN:										
COMPLETED:	<u> 11-13-</u>	89 1/1	PUT TO PROD	UCING:				-		
INITIAL PRODUC	CTION:									
GRAVITY A.P.I.									1.	
GOR:									ALCOHOL STORY	no were seen as
PRODUCING ZO	NES:									
TOTAL DEPTH:										
WELL ELEVATIO	N:									
DATE ABANDON	IED: ()	Du	Blen 1	1-13-	89					
FIELD:	WI	LDCAT								
UNIT:	CA	BALLO U	JNIT							
COUNTY:	SA	N JUAN	-			<u> </u>				
WELL NO.	CA	BALLO I	FED. 3-9					API N	0. 43-0	037-31415
LOCATION	515'	FSL	T. FROM (N) (S) LINE,	670'	FF	L	FT. FROM (E) (W) L	INE. SE	SE	1/4 — 1/4 SEC. 9
TWP.	RGE.	SEC.	OPERATOR				TWP.	RGE.	SEC.	OPERATOR
							36S	23E	9	QUINTANA PETROLEUM CORP.



CONFIDENTIAL - TIGHT HOLE

(Other instructions on

STATE OF UTAH

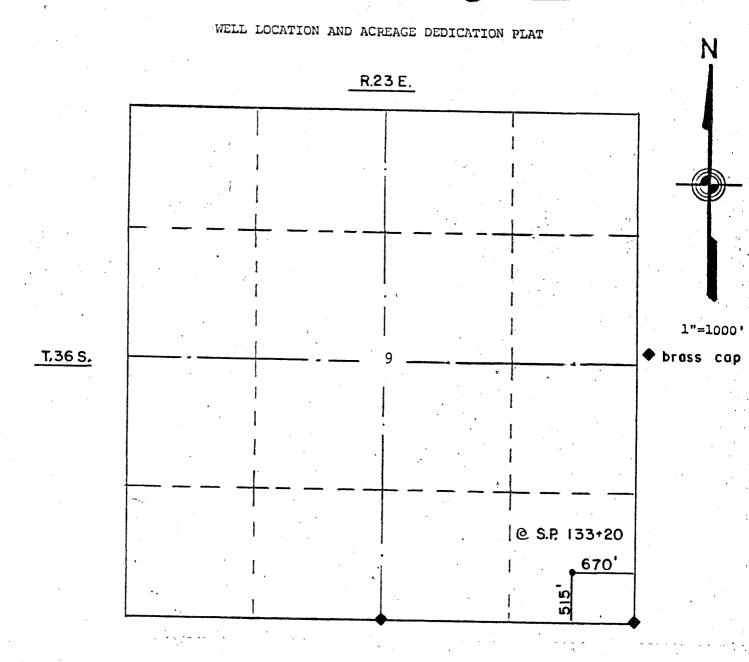
re	verse	side)		

	DEPARTMENT OF DIVISION OF OII	HATURAL BESOURCE	and the same	everse side)	5. Lease Designation and Serial No.
APPLICAT	ION FOR PERMIT	DAIPR 20FF	EN CRIPLUC	BACK	6. if Indian, Allottee or Tribe Name
Ia. Type of Work		<u> </u>	300		. <u>N/A</u>
b. Type of Well	DRILL X	DEEPE DIVISION C	F PLUG	BACK [7. Unit Agreement Name V
Well X	Gas Well Other	OIL, GAS & MI	NING:gle 🔽	Multiple Zone	8. Farm or Lease Name
2. Name of Operator	303/628-9211	and the second s	1050-17th St.		Caballo Federal
Ouintana	Petroleum Corp.)265	9. Well No.
3. Address of Opera	tor 303/322-7878		P.O. Box 4406		#3-9
Permitco 4. Location of Well	Inc Agent (Report location clearly and) 201-4065	10. Field and Pool, or Wildcat Caballo Field Wildcat
515'	FSL and 670' FEL				11. Sec., T., R., M., or Blk. and Survey or Area
At proposed prod.	SE SE				Sec. 9, T36S-R23E
	s and direction from nearest		· · · · · · · · · · · · · · · · · · ·		12. County or Parrish 13. State
25 miles	southeast of Mont	cicello, Utah			San Juan Utah
15. Distance from plocation to near property or lease (Also to nearest	est e line, ft. drlg. line. if any) 515		No. of acres in lease 2387.42		of acres assigned s well 40
18. Distance from p to nearest well, or applied for, o	roposed location* drilling, completed, n this lease, ft. appro		Proposed depth 6837' Akah		y or cable tools tary
6346' GR	whether DF, RT, GR, etc.)				22. Approx. date work will start* Upon approval
23.		PROPOSED CASING AI	D CEMENTING PROG	RAM	
Size of Hole	Size of Casing	Weight per Foot	Setting Depth		Quantity of Cement
12-1/4"	9 5/8"	36#	2235'	621	. sx or suff to circ to sur
8 3/4"	5 1/2"	15.5 & 17#	6837'	To	be designed upon completion
	***************************************			Suf	ficient to cover zones of erest.
Desert Cr	reek formation. I the well will be p	f productive, c	asing will be	run the	est the Ismay and well completed. tate of Utah

See Onshore Order No. 1 attached.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout

reventer program, if any.	Ω# · · ·	
Simil Gera & Meen	Consultant for Quintana Petroleum Corp.	4/25/88
(This space for Federal or State office use)		
Permit No. 43-037-31415	Approval DATPPROVED BY TH	IE CTATE
Approved by	OF UTAH DIVIS	ION OF
Conditions of approval, if any:	OIL, GAS, AND I	MINING
	DATE 5-5-88	2
*C 1	BY John K. D.	44
See II	nstructions On Reverse Side WELL SPACING:	\R1015-2-3
		1



WELL LOCATION DESCRIPTION:
Quintana Petroleum, Caballo Federal #3-9
515'FSL & 670'FEL
Section 9, T.36 S., R.23 E., SLM
San Juan County, UT.
6346' ground elevation
Alternate: 200'FN & 800'FE, 6317' grd.

The above plat is true and correct to my

6 April 1988

knowledge and belief

Gerald G. Madleston, LS

CONFIDENTIAL - TIGHT HOLE

ONSHORE OIL & GAS ORDER NO. 1

Approval of Operations on Onshore Federal and Indian Oil and Gas Leases

CABALLO UNIT FEDERAL #3-9
515' FSL and 670' FEL
Section 9, T36S - R23E
San Juan County, Utah

Prepared For:

QUINTANA PETROLEUM CORP.

By:

PERMITCO INC. P.O. Box 44065 Denver, Colorado 80201-4065 303/322-7878

Copies Sent To:

- 4 BLM Moab, Utah
- 1 BLM Monticello, Utah
- 1 Div. of Oil, Gas & Mining SLC, Utah
- 3 Quintana Petroleum Corp. Denver, CO



QUINTANA PETROLEUM CORPORATION

1050 SEVENTEENTH STREET SUITE 400 DENVER COLORADO 80265

(303) 628-9211

March 21, 1988

Bureau of Land Management P. O. Box 7 Monticello, UT 84535

Re: Caballo Unit Federal #1-8
Caballo Unit Federal #2-9
Caballo Unit Federal #1-15
Caballo Unit Federal #3-9
San Juan County, Utah

Gentlemen:

This letter is to inform you that Permitco is authorized to act as Agent and to sign documents on behalf of Quintana Petroleum Corporation when necessary for filing county, state and federal permits including Onshore Order No. 1 Right-of-Way applications, etc. for the referenced wells.

It should be understood that Permitco is acting as Agent only in those matters stated above and is not responsible for drilling, completion, production or compliance with regulations.

Quintana Petroleum Corporation agrees to accept full responsibility for operations conducted in order to drill, complete and produce the above-mentioned wells.

Very truly yours,

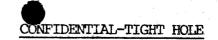
John W. Wessels

District Operations Manager

cc: Permitco - Lisa Green

BLM

P. O. Box 970 Moab, UT 84532



DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1 Approval of Operations on Onshore Federal and Indian Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

1. The surface formation and estimated formation tops to be encountered are as follows:

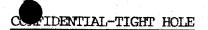
Formation	Depth	Subsea
Quaternary Eolians	Surface	*
Chinle	2235'	+4098'
Shinarump	2898'	+34351
Hermosa	5110'	+1223'
Ismay	6468'	- 135'
Hovenweep Shale	6578'	- 245
Lower Ismay	6631'	- 298'
Gothic Shale	6685'	- 352'
Desert Creek	6702'	- 369'
Chimney Rock Shale	6816'	- 483
T.D Akah	6837'	- 504'

2. The estimated depths at which oil, gas, water or other mineral bearing zones are expected to be encountered are as follows:

Substance	Formation	Anticipated Depth
Oil	Upper Ismay	6468'
Oil	Desert Creek	6702'

All fresh water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth cased and cemented. All oil and gas shows will be tested to determine commercial potential.





DRILLING PROGRAM

3. Pressure control equipment will consist of a 10", 3000# BOP. BOP Diagram attached.)

BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

4. a. Casing

The proposed casing program is as follows:

			• •				or
Purpose Conductor	Depth 0-40'	Hole Size	O.D. 16#	Wt.	<u>Grade</u>	Type	Used
Surface	0-2235	12-1/4"	"	36#	K-55	ST&C	New
Produc.	0-6000'	8-3/4"	5-1/2"	15.5#	K-55	LT&C	New
Produc.	6000-TD	8-3/4"	5-1/2"	17.0#	K-55	LT&C	New

Cement

The cementing program will be as follows:

Surface 0-2235'

Type and Amount

621 sx Lite with 2% CaCl₂ and 1/4#/sk Flocele, followed by 200 sx Class B w/2% CaCl₂ or sufficient to circulate

to surface.

Production

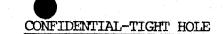
Type and Amount

Will be designed upon completion sufficient to cover zones of interest.

Anticipated cement tops will be reported as to depth, not the expected number of sacks.



New



DRILLING PROGRAM

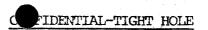
- c. Auxiliary Equipment will be as follows:
 - 1. Kelly cock.
 - 2. Float above the bit.
 - 3. A sub with a full opening valve will be on the floor when the kelly is not in use.
 - 4. Monitoring of the system will be done visually.
- 5. Drilling fluid will be as follows:

Interval	Mud Type	Mud Wt.	Visc.	F/L PH
0-2235'	Gel/Lime	8.3-8.6	27-35	F/L PH N/C 8.5-9.0
2235-5100'	Water w/Gel/Lime			
	Sweeps	8.4-8.6	27-35	N/C 8.5-9.0
5100-T.D.	Dispersed	9.0-10.5	35-45	8-10cc 10+

Blooie line will be misted to reduce fugative dust when air drilling.

- 6. Coring, logging and testing programs are as follows:
 - a. No cores are anticipated.
 - b. The logging program will consist of the following: A Dual Induction SFL or Dual Laterolog MSFL and BHC Sonic/GR will be run from T.D. to base of surface casing. A CNL Lithodensity will be run over selected zones.
 - c. Drill Stem Tests may be run in the Ismay and Desert Creek formations if shows warrant.



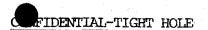


DRILLING PROGRAM

Whether the well is completed as a dry hole or as a producer, "Well Completion or Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the District Manager.

- 7. Abnormal conditions, bottom hole pressures and potential hazards.
 - a. The maximum bottom hole pressure to be expected is 3800 psi.
- 8. Anticipated Starting Dates and Notifications of Operations
 - a. Quintana Petroleum Corp. plans to spud the Caballo Unit Federal #3-9 immediately upon approval of this application and intends to complete the well within approximately one month - after the well has reached T.D.
 - b. Required verbal notifications are summarized in Table I, attached. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within twenty-four (24) hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.
 - c. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with the BIM, Moab District Office, P.O. Box 970, Moab, Utah 84532.
 - d. <u>Immediate Report:</u> Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NTL-3A.

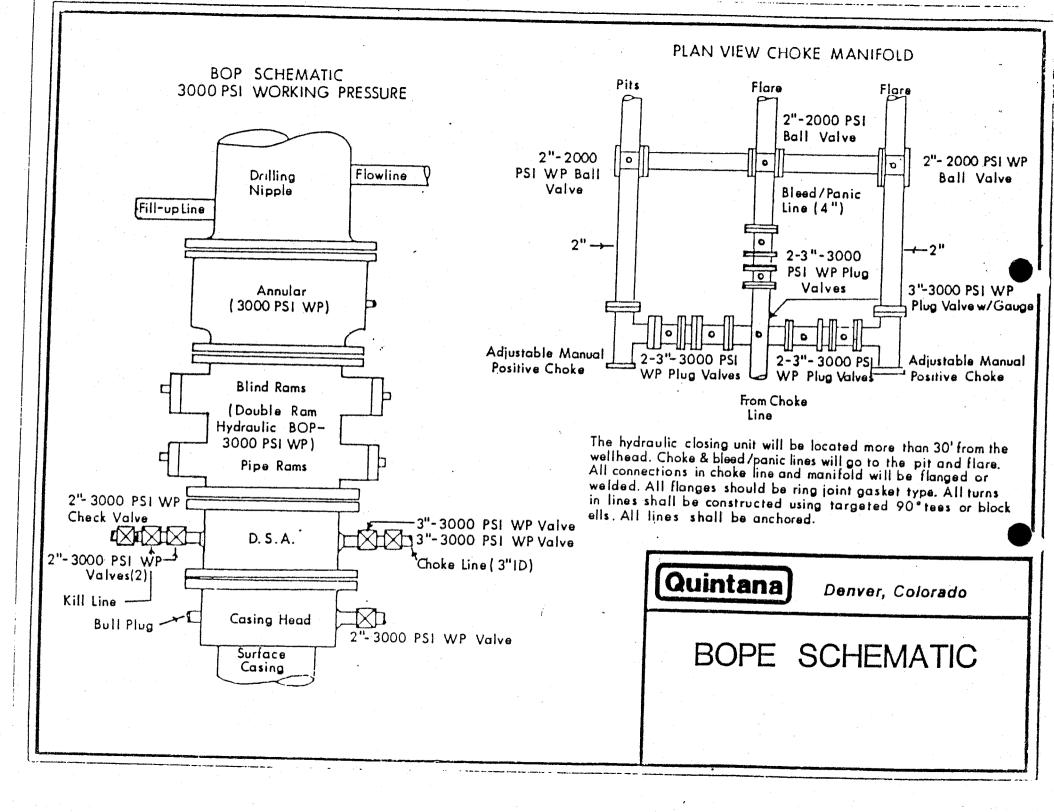


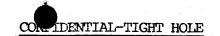


DRILLING PROGRAM

- e. Should the well be successfully completed for production, the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) business days following the date on which the well is placed on production.
- f. A first production conference will be scheduled within fifteen (15) days after receipt of the first production report. The Resource Area Office will coordinate the field conference.
- g. A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Manager within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the ARea Manager or his representative, or the appropriate surface managing agency.
- h. Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.
- i. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The marker will be constructed as follows: Above ground pipe. The top of the marker will be closed or capped.
- j. The following minimum information will be permanently placed on the marker with a plate, cap, or beaded-on with a welding torch:
 - "Fed" or Ind", as applicable. "Well number, location by 1/4 1/4, section, township and range". "Lease number".







SURFACE USE PLAN

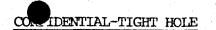
ONSHORE OIL & GAS ORDER NO. 1

Thirteen Point Surface Use Plan

1. Existing Roads

- a. The proposed well site is located 25 miles southeast of Monticello, Utah.
- b. Directions to the location from Blanding, Utah are as follows:
 - Go north on Highway 191 for 8.9 miles. Turn east onto the Devils Canyon Road (Alkali #204) and proceed 3.0 miles in a southeasterly direction to a fork in the road. Turn left onto the Alkali Ridge road and go southeasterly for 2.5 miles. Turn right (west) onto new access (flagged) and proceed west for approximately 1000'. Turn north onto an existing two-track and proceed north and west for approximately 0.8 miles. Turn south onto new access and proceed approximately 1300 feet to the location.
- c. The roads in the area are primarily county roads. The existing two-track crosses lands owned by the HIT Cattle Company (Boyd Laws) and the Bureau of Land Management. See Map #1.
- d. Improvement to the existing access will not be necessary.
- e. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- f. An encroachment permit will be obtained from the San Juan County Road Department, 801/587-2231, ext. 43.





SURFACE USE PLAN

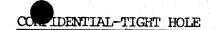
2. Planned Access Roads

- a. All existing two-tracks will be flatbladed with a running surface of approximately 18 feet and a total surface disturbance not to exceed 30 feet. If production is established, the road will be upgraded as per the BLM and private surface owner's requirements.
- c. The grade will be approximately 5%.
- d. Turnouts will be installed as needed. No culverts will be installed at this time unless requested by the San Juan County Road Dept. If required, a culvert will be installed where the new access road leaves the County Road (Alkali Ridge Road) in Section 10, T36S R23E. Drainage will be installed as needed.
- e. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance by the San Juan Area Manager or the surface owner.
- f. The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drilling rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.

3. <u>Location of Existing Wells Within a 1-Mile Radius of the Proposed Location.</u> (See Map #2).

- a. Water Wells none
- b. Injection or disposal wells none
- c. Producing Wells one
- d. Drilling Wells none



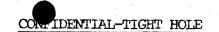


SURFACE USE PLAN

4. Location of Tank Batteries and Production Facilities.

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be neutral to blend in with the terrain.
- b. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the largest tank.
- c. If production is established, a production facility diagram will be submitted showing the location and description of such facilities.
- d. All loading lines will be placed inside the berm surrounding the tank battery.
- e. Any necessary pits will be properly fenced to prevent any wildlife entry. The production pit will be flagged overhead.
- f. All site security guidelines identified in 43 CFR 3162.7-4 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- g. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
- h. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.





SURFACE USE PLAN

4. Production Facilities (cont.)

i. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Resource Area Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

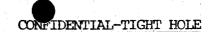
5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from a private source.
- b. Water will be trucked to location over the county roads in the area.
- c. No water well is to be drilled on this lease.
- d. Use of water for this operation will approved by obtaining a temporary use permit from the Utah State Engineer, in Price, Utah, 801/637-1303.
- e. Water obtained on private land, or land administered by another agency, will require approval from the owner or agency for use of the land.

6. Source of Construction Material

- a. Road surfacing material will be obtained from a commercial source. Pad construction material will be native.
- b. The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.





SURFACE USE PLAN

7. Methods for Handling Waste Disposal

- a. The reserve pit will be lined with native clay or commercial bentonite. At least half the capacity will be in cut.
- b. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
- c. All trash will be contained in a trash cage and hauled to an approved landfill upon completion of drilling operations.
- d. At the request of Quintana Petroleum Corp., no burning will be allowed on this location.
- e. Produced waste water will be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90-day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

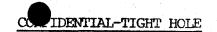
8. Ancillary Facilities

a. There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. See Diagram #1 for rig layout. See Diagram #2 for cross section of drill pad. See Diagram #3 for cuts and fills.
- b. The location of mud tanks; reserve pit, trash cage; pipe racks; living facilities and soil stockpiles will be shown on Diagrams #1 and #3. The location will be laid out and constructed as discussed during the predrill conference.
- c. No topsoil material will be removed from the location. Topsoil along the access will be reserved in place.





SURFACE USE PLAN

9. Wellsite Layout (cont.)

d. Access to the well pad will be from the northeast corner of the pad.

10. Reclamation

- a. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris, materials, trash and junk not required for production.
- b. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- c. All disturbed areas will be recontoured to approximate the natural contours.
- d. The stockpiled topsoil will be spread evenly over the disturbed contours.
- e. Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface. The disturbed area will be ripped 6 inches deep with the rips 18 inches apart.
- f. Seed will be broadcast October 1st through February 28th.

The following seed mixture will be used:

Species	Lbs./acre
Crested Wheatgrass	6
Fourwing Saltbush	4
Yellow Sweetclover	1/2

g. The reserve pit and that portion of the location and access road not needed for production and production facilities will be reclaimed.





SURFACE USE PLAN

11. a. Surface Ownership

Drillsite - Bureau of Land Management

Access Crossing Private Land HIT Cattle Company c/o Boyd Laws 282 W. 700 N., 34 Blanding, UT 84511 801/678-2997

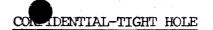
b. Mineral Ownership

Federal

12. Other Information

- a. There will be no deviation from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.3-2.
- b. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.
- c. The dirt contractor will be provided with an approved copy of the surface use plan.
- d. All persons in the area who are associated with the project will be informed by the operator that they will be subject to prosecution for disturbing archaeological sites or collecting artifacts. If subsurface cultural material is exposed during construction, work at that spot will stop immediately and the BIM, San Juan Resource Area Office will be contacted (801/587-2141.) The operator will be responsible for the cost of evaluation of the discovery and proper mitigation measures. Any decision as to proper mitigation shall be made by the authorized officer after consulting with the operator.





SURFACE USE PLAN

12. Other Information (cont.)

- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligation determined by the authorized officer.
- g. An archeological study was conducted by IaPlata Archaeological Consultants. Several archeological sites were found near the wellpad and along the access road. All archeological sites will be fenced prior to construction. Sites are shown on Diagram #3. A copy of the cultural resources report is attached.

13. <u>Lessee's or Operator's Representative and Certification</u>

Permit Matters
PERMITCO INC.
Lisa L. Green
P.O. Box 44065
Denver, CO 80201-4065
303/322-7878

Drilling & Completion Matters
QUINTANA PETROLEUM CORP.

1050-17th St.
Suite 400
Denver, CO 80265
303/628-9211 (W) 303/969-9468 (H) - Scott Kimbrough

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Quintana Petroleum Corp. and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.



CONFIDENTIAL-TIGHT HOLE

SURFACE USE PLAN

13. Certification (cont.)

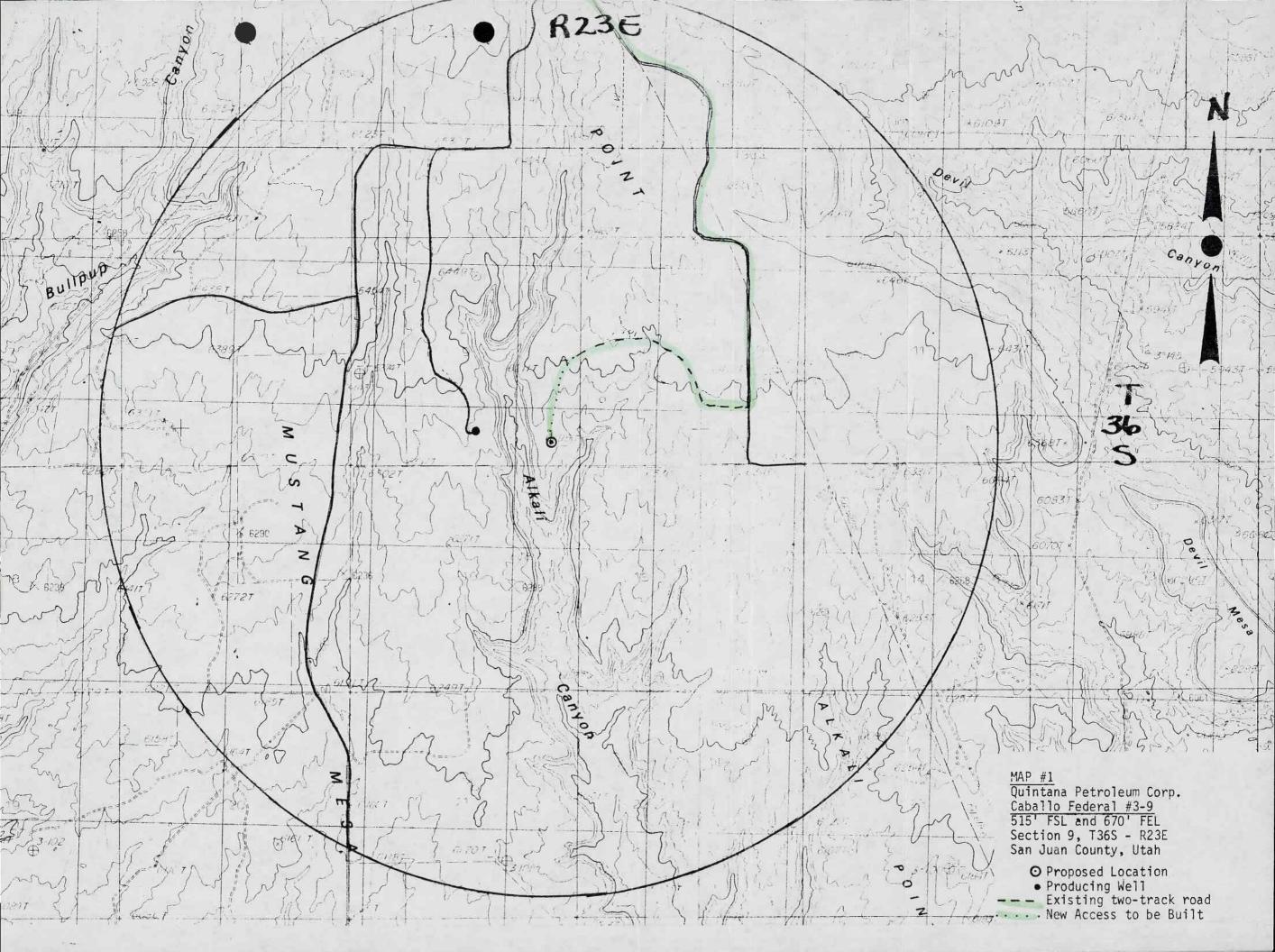
This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

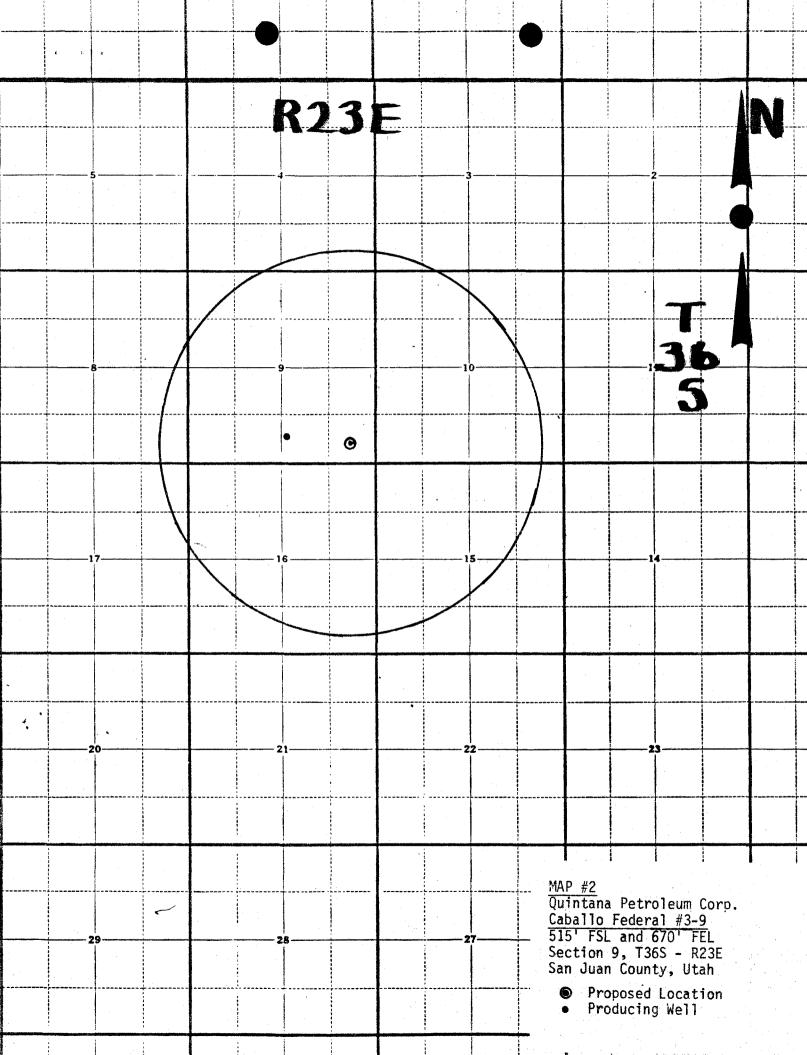
April 25, 1988

Lisa L. Green - PERMITCO INC.

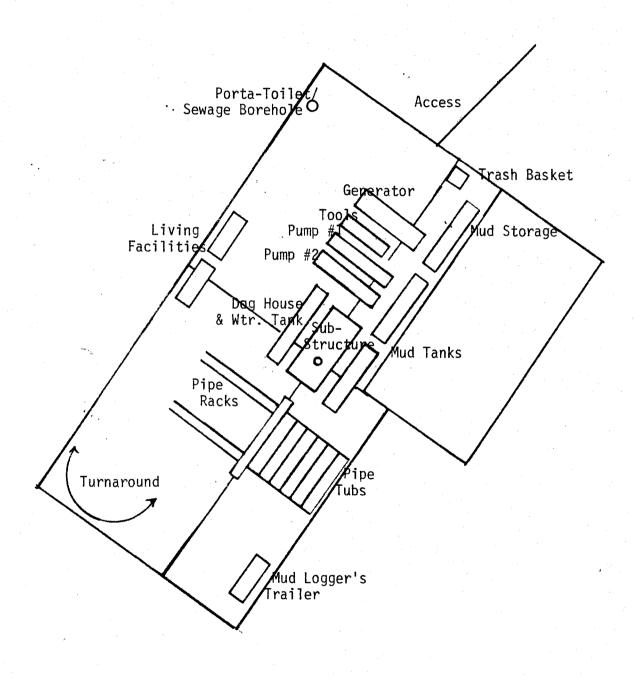
Authorized Agent for: QUINTANA PETROLEUM CORP.





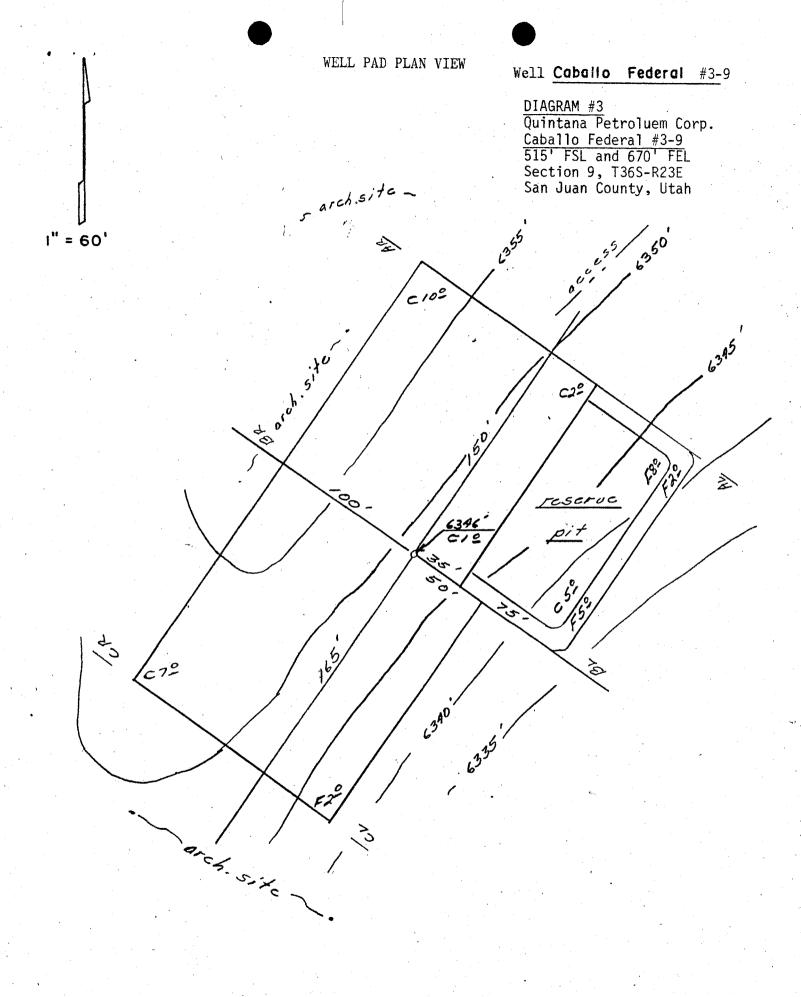


Quintana Petroleum Corp. Caballo Federal #3-9 515' FSL and 670' FEL Section 9, T36S-R23E San Juan County, Utah



AR

30'-



ARCHEOLOGICAL SURVEY OF QUINTANA PETROLEUM CORPORATION'S CABALLO FEDERAL 1-16 ALTERNATE #2 WELL, SAN JUAN COUNTY, UTAH

LAC REPORT 8843

by Patrick L. Harden

LA PLATA ARCHEOLOGICAL CONSULTANTS, INC. P.O. BOX 783 DOLORES, COLORADO 81323 (303) 882-4933

April 18, 1988

FEDERAL ANTIQUITIES PERMIT 85UT57626 UTAH STATE PERMIT U88-LA-110b

Prepared For:

Quintana Petroleum Corporation Prudential Plaza, Suite 400 1050 17th St. Denver, Colorado 80265

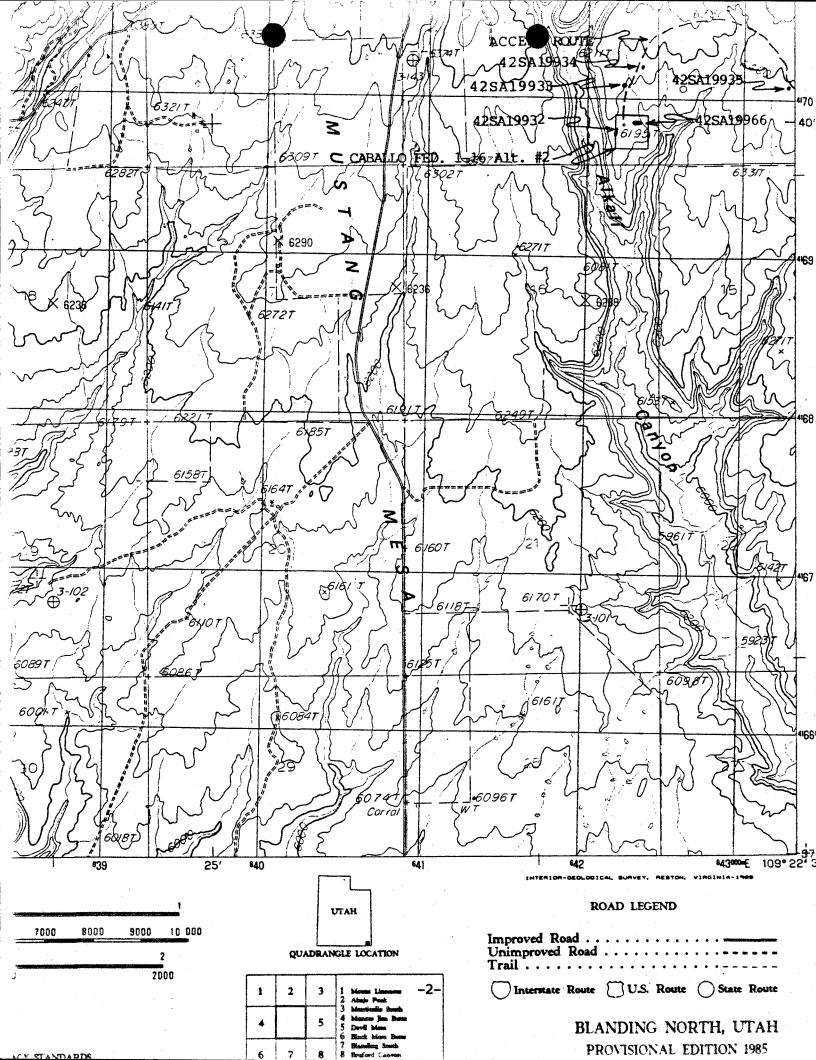
ABSTRACT

The archeological survey of Quintana Petroleum Corporation's Caballo Fed. 1-16 Alternate #2 well was conducted by personnel of La Plata Archeological Consultants, Inc. on April 7, 1988. The well is located on lands administered by the Bureau of Land Management in San Juan County, Utah. An area 660 X 660 feet surrounding the well center stake was inventoried for cultural resources. Two archeological sites were found, one previously recorded. It is recommended that protective fences be built between the two sites and the well pad prior to construction of the pad. Three other sites had been previously recorded along the access route, thus it is also recommended that construction of the access road be archeologically monitored. Given these stipulations, and provided that all sites are strictly avoided, archeological clearance for the project is recommended.

INTRODUCTION

On April 7, 1988 the archeological survey of Quintana Petroleum Corporation's Caballo Federal 1-16 Alternate #2 well pad was conducted by Patrick Harden of La Plata Archeological Consultants, Inc. The survey was requested by Ms. Lisa Green (Permitco), acting permit agent for Quintana. The well is an alternate location for the originally staked Caballo Fed. 1-16 well. The original location was on Utah State lands, but the Alternate #2 location is on lands administered by the Bureau of Land Management. The access to the well is the same as that flagged for the original well location, which is now ca. one mile in length. Approximately .2 miles of the access are on BLM lands, with the remaining ca. .8 miles on private land. It was originally recommended that an archeologist be present during access road construction to ensure that the archeological sites situated near it are avoided (Harden 1988): this recommendation still holds.

The project consists of the construction of a single well pad ca. 275 X 325 feet in size. The well is located in the SE 1/4 of section 9, T36S, R23E in San Juan County, Utah. The area is contained on the Blanding North 7.5' series topographic quadrangle.



PHYSIOGRAPHY AND ENVIRONMENT

The well is located along the west side of Alkali Ridge on a narrow extension of the mesa lying between Alkali Canyon and a deep side canyon of it. The well pad is situated on the crest and southerly slopes of a low ridge on the mesa top.

Vegetation is a pinyon-juniper forest over the entire area. Only a very sparse understory is present. Sediments consist of aeolian sandy loam, with exposed sandstone bedrock and colluvial gravels present on the southerly slopes.

SURVEY PROCEDURES

Prior to the field investigations a file search was requested through the Division of State History. Another search was conducted at the BLM office in Monticello on March 3rd and April 4th. The searches indicated that no archeological sites had been recorded in the project area *per se*, although the recently recorded 42SA19932, 19933, 19934, and 19935 were noted in the LAC files.

On-the-ground survey consisted of walking a series of transects spaced 15 meters apart across an area 660 X 660 feet (ten acres) surrounding the well center stake. A 100' wide corridor along the access route had been previously inventoried (ibid.).

SURVEY RESULTS

Two archeological sites were found during the survey of the well pad. One of the sites (42SA19932), as well as three others along the access route (42SA19933, 19934 & 19935), had been previously recorded. The newly recorded site (42SA19966) is briefly described below. More detailed information is contained in the site form submitted to the BLM and Division of State History. All of the sites are flagged with blue flagging tape to indicate where protective fences are to be built, or where all ground disturbing activities are prohibited.

SITE NO.:

42SA19966

DESCRIPTION: This site consists of two upright slab lined features, probably representing kilns. One is $4 \times 1.5 \text{m}$ in size and the other is $3 \times 2 \text{m}$. The two features are separated from one another by 150 feet. No artifacts were associated with either feature.

CONCLUSION

The archeological survey of Quintana Petroleum Corporation's Caballo Federal 1-16 Alternate #2 well pad was conducted on April 7, 1988 by personnel of La Plata Archeological Consultants, Inc. The well and .2 miles of the previously surveyed access route are located on lands administered by the Bureau of Land Management in San Juan County, Utah. An additional ca. .8 miles of the access are on privately owned lands. An area 660 X 660' surrounding the well center stake was surveyed. A 100' wide access corridor had been previously surveyed. Two archeological sites were found during the survey for the well pad: one had been previously recorded. Three other sites had been found during the survey for the access road. It is recommended that both sites situated near the well pad (42SA19932 and 19966) have protective fences built between them and the pad prior to construction activities. It is also recommended that an archeologist be present during access road construction to ensure that sites 42SA19932, 19934 and 19935 are avoided. Given these stipulations archeological clearance for the project is recommended.

REFERENCE CITED

Harden, Patrick L.

1988 Archeological Survey of Quintana Petroleum Corporation's Caballo Federal 1-16 Well, San Juan County, Utah. LAC Report 8816.

Deview of APDS

CAUE CANYON Fed 4-3 T385, R24 E, Sec 4 SAN Juan County Utah. 133/8" Casing at 100' 8 5/8" carry at 1900' Dakoha - surface. Estimated Tops.

Hermosa Group 4737'

Isman 5689' 77/8 carriy at 6/10 (2) CAVE CANYON Fed 3-3 7385, R24E see 3 San Juan Country 133/8 100' 85/8 1900 5/z 6080 Pakota Surface Estimated

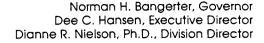
Hermasa Grup 4711

Ismay 5675 - note TH-Raymond Duncan Well in T385 R24E sec 4 61 5330 Federal # 1 set 85/5 at 2500 At The 3-2, and 3-1 well in T385 R79E su3 both set 85/8 at 1900 feet It appears that Chinle comes in at approx - 1900-2000 - According to a Log from 385.24E 5th /6.

APD review (ca) Quiptena Petroleum Caballo Federal 3-7 7365 RZ3E Sug 95/8 set at 2235 51/2 set at 6837 2235 Estimated Tops.
2898
5110 Chinle Shinarung to project all important nater bearing sands. reviewed by D. Joseph 3/4/88

CONFIDENTIAL

OPERATOR Quintana Pe	troleum C	orp.	DATE 4-28-88
WELL NAME Caballo Fed.	3-9		
SEC <u>SESE</u> 9 T	365 R	23E COUNTY	San Quan
43-037-31415 API NUMBER		the state of the s	ed. OF LEASE
CHECK OFF:			
PLAT		BOND	NE AREST WELL
LEASE		FIELD	POTASH OR OIL SHALE
PROCESSING COMMENTS: unit well			
need water perm	it		
APPROVAL LETTER:			
SPACING: R615-2-3	3 Cabel	lo Unit	R615-3-2
	CAUSE N	O. & DATE	R615-3-3
STIPULATIONS: 1- Water permit			
			The second secon





355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 5, 1988

Quintana Petroleum Corporation c/o Permitco Inc. P. O. Box 44065 Denver, Colorado 80201-4065

Gentlemen:

Re: Caballo Federal 3-9 SE SE Sec. 9, T. 36S, R. 23E 515' FSL, 670' FEL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule R615-2-3, Oil and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

- 1. Spudding notification within 24 hours after drilling operations commence.
- 2. Submittal of an Entity Action Form within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
- 3. Submittal of the Report of Water Encountered During Drilling, Form OGC-8-X.
 - 4. Prompt notification if it is necessary to plug and abandon the well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or Jim Thompson, Lead Inspector, (Home) 298-9318.
 - 5. Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Page 2 Quintana Petroleum Corporation Caballo Federal 3-9 May 5, 1988

- Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
- 7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31415.

Sincerely,

R. JA Airth

Associate Director, Oil & Gas

lr
Enclosures
cc: Branch of Fluid Minerals
 D. R. Nielson
8159T

placed in wrong mailbox receptionist CONFIDENTIAL - TIGHT HOLE RECEIVED Form approved. Form 3160 3 (Other instructions on Budget Bureau No. 1004-0136 (November 1983) UNITED STATES (formerly 9-331C) Expires August 31, 1985 DEPARTMENT OF THE INTERMA 5. LEASE DESIGNATION AND SERIAL NO. BUREAU OF LAND MANAGEMENT U-23520 APPLICATION FOR PERMIT TO DRILL, DEPPENDITORAPLUGIBACK 6. IF INDIAN, ALLOTTER OR TRIBE NAME N/A IS. TYPE OF WORK 7. UNIT AGREEMENT NAME DRILL 🔼 DEEPEN [PLUG BACK b. TYPE OF WELL Caballo Unit GAS WELL BINGLE TO MULTIPLE SONE S. FARM OR LEASE NAME 2. NAME OF OPERATOR 303/628-9211 1050-17th St., Suite 400 Caballo Federal Quintana Petroleum Corp. Denver, CO 80265 9. WELL NO. 3. ADDRESS OF OPERATOR 303/322-7878 P.O. Box 44065 3-9 Permitco Inc. - Agent Denver, CO 80201-4065 10. FIELD AND POOL, OR WILDCAT 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) . At surface -Caballo Field Wilder 11. SBC., T., R., M., OR BLK. AND SURVEY OR ARRA 515' FSL and 670' FEL At proposed prod. sone SE SE Sec. 9, T36S-R23E 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE® 12. COUNTY OR PARISH | 13. STATE 25 miles southeast of Monticello, Utah San Juan Utah 15. DISTANCE FROM PROPOSED®
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig, unit line, if any) 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED TO THIS WELL 515' 2387.42

Akah

20. BOTARY OR CABLE TOOLS

22. APPROX. DATE WORE WILL START*

Upon approval

Rotary

19. PROPOSED DEPTH

approx. 1500'

6837

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Consultant for
Quintana Petroleum Corp.

PERNIT NO.

4/25/88

APPROVED BY
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DISTNICT MUMAGIN

MAY 19 1998

FLARING OF VENTING OF GAS IS SUBJECT TO NITL 4-A DATED 1/1/80

18. DISTANCE FROM PROPOSED LOCATION®
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

21. BLEVATIONS (Show whether DF, RT, GR, etc.)

6346' GR

CONDITIONS OF APPROVAL ATTACHED

*See Instructions On Revene Side

Form OGC-la

RECEIVED

CONFIDENTIAL - TIGHT HOLE

STATE OF UTAH
DEPARTMENT OF NATURAL RES**MACES** 3 1988
DIVISION OF OIL, GAS, AND MINING

Other instructions on reverse side)

5.	Lease	Designation	and	Serial No.
	U-23	3520		

Sufficient to cover zones of

interest.

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APPLICATION I	OR PERMIT T	O DRILL, DE	EPEN, OR PLU	G BACK	6. If Indian, Allotted N/A	or Tribe Name
Ia. Type of Work DRILL b. Type of Well	X)	DEEPEN	PLUG	BACK [7. Unit Agreement No Caballo Un	
Oil Gas Well Well		والمراجعة	Single X	Multiple Zone	8. Farm or Lease Na	
2. Name of Operator 303/ Quintana Petro	628-9211 Jeum Corp		1050-17th St. Denver, CO 8	., Suite 30265	9. Well No.	Jerai
3. Address of Operator 30	3/322-7878		P.O. Box 440	065	- #3-9	r Wildest
Permitco Inc. 4. Location of Well (Report At surface	 Agent location clearly and in a 	ccordance with any	Denver, CO { State requirements.*)	<u> 30,201-406</u>	Caballo F	ield
515' FSL	and 670' FEL				11. Sec., T., R., M., and Survey or A	
	SE SE		· · · · · · · · · · · · · · · · · · ·		Sec. 9, T	
14. Distance in miles and dir 25 miles south					12. County or Parrisi San Juan	h 13. State Utah
 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. line 			2387.42		of acres assigned his well 40	
 Distance from proposed I to nearest well, drilling, or applied for, on this lea 	completed, approx.		9. Proposed depth 6837		ary or cable tools	
21. Elevations (Show whether 6346 GR	DF, RT, GR. etc.)				22. Approx. date w Upon approv	
23.	I	PROPOSED CASING	AND CEMENTING PRO	GRAM		
Size of Hole	Size of Casing	Weight per Foot	Setting Depth		Quantity of Cem	ent
12-1/4"	9 5/8"	36#	2235'	62	1 sx or suff	to circ to si
8 3/4"	5 1/2"	15.5 & 17#	68371	Ťc	be designed (upon complet

Quintana Petroleum Corp. proposed to drill a well to 6837' to test the Ismay and Desert Creek formation. If productive, casing will be run the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Onshore Order No. 1 attached.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

Signed Stand Steen	Consultant for _{Title} Quintana Petroleum Corp.	4/25/88
(This space for Federal or State office use)		
Permit No	Approval Date	
Approved by	Title	Date

WELL LOCATION AND ACREAGE DEDICATION PLAT R.23 E, 1"=1000 T.36 S. brass cap @ S.P. 133+20 670 RECEIVED WELL LOCATION DESCRIPTION: Quintana Petroleum, Caballo Federal #3-9 MAY 2 3 1988 515'FSL & 670'FEL Section 9, T.36 S., R.23 E., SLM San Juan County, UT. DIV. OIL, GAS, MINING 6346' ground elevation Alternate: 200'FN & 800'FE, 6317' grd. ERED LAND The above plat is true and correct to my kffow 6 April 1988 Gerald G. dleston

Quintana Petroleum Corp. Well No. Caballo Federal 3-9 Sec. 9, T. 36 S., R. 23 E. San Juan County, Utah Lease U-23520

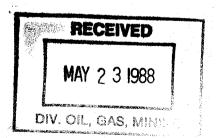
CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Quintana Petroleum Corp., is the bonded entity on this application. Liability will remain with the bonded party named above until we are formally notified by letter of the new bonded entity in reference to this Application for Permit to Drill.

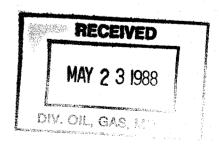
A. DRILLING PROGRAM

- 1. Surface casing shall be set 50' into the Chinle Formation or at 2285' according to estimated formation tops.
- 2. BOP specification and testing:
 - a) All ram-type preventers will be tested to the rated working pressure of the stack or to 70% of the internal yield of casing, whichever is less.
 - b) The annular-type preventer will be tested to 50% of its rated working pressure.



B. THIRTEEN POINT SURFACE USE PLAN

1. A BLM approved archaeologist will monitor access road construction and clearing of the well pad location.



NOTIFICATIONS

Notify the San Juan Resource Area, at (801) 587-2141 for the following:

2 days prior to commencement of dirt work, construction or reclamation;

1 day prior to spudding;

Notify the Moab District Office, Branch of Fluid Minerals at (801) 259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individuals, in the order listed.

Dale Manchester, Petroleum Engineer

Office Phone: (801) 259-6111

Home Phone:

(801) 259-6239

Lynn Jackson, Chief, Branch of Fluid Minerals

Office Phone:

(801) 259-6111

Home Phone:

(801) 259-7990

Paul Brown, I&E Coordinator

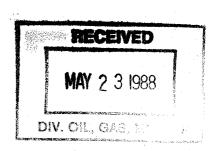
Office Phone:

(801) 259-6111

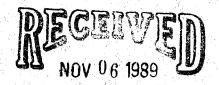
Home Phone:

(801) 259-7018

24 hours advance notice is required for all abandonments.



3162 (U-065) (U-23520)



DIVISION OF OIL, GAS & MINING Moab District F. O. Box 970 Moab, Utah 84532

NOV - 3 1989

Quintana Petroleum Corporation 1050 17th Street, Suite 400 Denver, Colorado 80265

Re: Rescinding Application for Permit to Drill
Well No. Caballo Federal 3-9
Sec. 9, T. 36 S., R. 23 E.
San Juan County, Utah
Lease U-23520

Gentlemen:

The Application for Permit to Drill the referenced well was approved on May 19, 1988. Since that date, no known activity has transpired at the approved location.

Applications for permit to drill are effective for a period of one year. In view of the foregoing, this office is rescinding and returning the referenced application. Should you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

If you have any questions, please contact the Branch of Fluid Minerals at (801) 259-6111.

Sincerely yours,

IS GENE NODINE

District Manager

Enclosure: Application for Permit to Drill

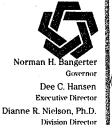
cc: San Juan Resource Area (w/o encl.)

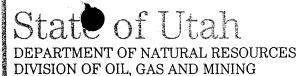
State of Utah, Division of Oil, Gas & Mining (w/o encl.)

Permitco, Inc. (w/o encl.)

bcc: USO, U-942 (w/o encl.)

KJones:kj:11/02/89





355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340

November 13, 1989

Quintana Petroleum Corporation 1050 17th Street, Suite 400 Denver, Colorado 80265

Gentlemen:

Re: <u>Caballo Federal 3-9, Sec. 9, T. 36S, R. 23E, San Juan County, Utah API No. 43-037-31415</u>

In concert with action taken by the U.S. Bureau of Land Management, approval to drill the above referenced well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

Don T. Staley

Administrative Supervisor

on 7. Staley

TAS/Idc

CC:

D.R. Nielson

R.J. Firth

BLM - Moab

Well file

HOI2/4